RYL

UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/047,842	01/15/2002	Ronald P. Doyle	RSW920010182US1	5659

7590	12/15/2004

Jeanine S. Ray-Yarletts
IBM Corporation T81/503
PO Box 12195
Research Triangle Park, NC 27709

EXAMINER
LU, KUEN S

ART UNIT	PAPER NUMBER
2167	

DATE MAILED: 12/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	10/047,842	DOYLE ET AL.
	Examiner	Art Unit	
	Kuen S Lu	2167	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *8/16/2* MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *8/16/2004*.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

1. The Action is responsive to the Applicant's Amendments, filed on August 16, 2004.

2. In responding to Applicant's Amendments made to the claims where new issues

relating to hints that comprise "an indication of anticipated relationships" was

introduced, the Examiner has created this Office Action for Final Rejection (hereafter

"the Action") as shown next.

3. As for the Applicant's Remarks on claim rejections, filed on August 16, 2004, has

been fully considered by the Examiner, please see discussion in the section Response

to Arguments, following the Office Action for Final Rejection.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
such that the subject matter as a whole would have been obvious at the time the invention was made to a
person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived
by the manner in which the invention was made.

5. Claims 1-8, 10-11, 13 and 20-21 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Papierniak et al. (U.S. Patent 6,169,997, hereafter "Papierniak") and

further in view of Shoup et al. (U.S. Publication 2002/0147734, hereafter "Shoup").

As per Claims 1, 20 and 21, Papierniak "storing content in a computing network" (See

Fig. 1 and col. 3, lines 16-18 papwin web pages are stored on and retrieved from

network system and internet data processing computer isxxx storing content in a

computing network).

Papierniak does not specifically teach "receiving hints that comprise an indication of anticipated relationships among files".

However, shoxxx "receiving hints that comprise an indication of anticipated relationships among files" (See Page 2, [0018], Page 3, [0023] and Figs 2 and 4 showin policies and their predicates for associating with files are the indication of anticipated relationships among files isxxx receiving hints that comprise an indication of anticipated relationships among files).

It would have been obvious to one having ordinary skill in the art at the time of the applicant's invention was made to combine Shoup's reference into Papierniak's by further extending the correlation of web page files with subject to other areas, such as attributes, file content and archiving policies because both references are devoted to file storage and archiving, the combined reference would have more efficiently managed file storage and retrieval, and more meaningfully presented the files for business operation.

Shofxxx "using the received hints to allocate storage for the files" (See Fig. 4 and Page 3, [0026] showin files associated with policies are transferred to preprocessing module that formats the file for storage isxxx using the received hints to allocate storage for the files).

As per claim 2, Shoup teaches "the hints are created by a content management system" (See Page 2, [0018] showin the policies refer to file attributes and predicates in the file archive system isxxx the hints are created by a content management system).

As per claim 3, Shoup teaches "the hints specify one or more files that are likely to be referenced within a temporal proximity of a reference to a selected one of the files" (See Page 3, [0023]-[0026] and Page 2, [0015] showin data file attributes are examined in accordance with the policy predicates, correlation table identifies policies that are associated with particular data files and file creation and expiration dates are temporal file attributes to be correlated with policies isxxx the hints specify one or more files that are likely to be referenced within a temporal proximity of a reference to a selected one of the files).

As per Claim 4, Papierniak further teaches "the selected file is a web page" (See Fig. 5, elements 502.s' and col. 7, line 62 – col. 8, line 3 papwin selected records are web page files isxxx the selected file is a web page).

As per claim 5, Papierniak teaches "the one or more files comprise at least one of (1) one or more embedded objects of the web page and (2) one or more other web pages which are hyperlinked to the web page" (See Fig. 6, elements (1) – (4) and col. 8, lines 4-12 papwin page files may contain links or levels 2 and 3 web objects isxxx the one or more files comprise at least one of (1) one or more embedded objects of the web page and (2) one or more other web pages which are hyperlinked to the web page).

As per claim 6, Shoup teaches "the hints are created by a content authoring tool, and wherein the hints specify one or more files that are likely to be referenced within a

temporal proximity of a reference to a selected one of the files" (See See Page 3,

[0023]-[0026] and Page 2, [0015] showin data file attributes are examined in

accordance with the policy predicates, correlation table identifies policies that are

associated with particular data files and file creation and expiration dates are temporal

file attributes to be correlated with policies isxxx the hints are created by a content

authoring tool, and wherein the hints specify one or more files that are likely to be

referenced within a temporal proximity of a reference to a selected one of the files).

As per claim 7, Papierniak further teaches "the selected file is a text document" (See

col. 10, lines 11-22 showin the page files are text format documents isxxx the selected

file is a text document).

As per claim 8, Papierniak teaches "the one or more files comprise one or more

objects which are embedded within or referenced by the text document" (See Fig. 2,

elements 204-216 showin the objects embedded in the page file isxxx the one or more

files comprise one or more objects which are embedded within or referenced by the text

document).

As per claim 10, Papierniak teaches "the receiving step is performed by a file system

and the using step is performed by a storage system" (See Fig. 1, elements 112, 113

and 118, and col. 5, lines 33-42 papwin web page file relationship, page map, is built by

receiving information of page log and web pages, furthermore, the page map

information is loaded into data warehouse to store isxxx the receiving step is performed

by a file system and the using step is performed by a storage system).

As per claim 11, the combined Papierniak-Shoup reference teaches "the hints are

encoded in a markup language notation" (See Papierniak: Fig. 9, element 914 and col.

10, lines 23-24 where page map stored in content page format, and Shoup: Page 2,

[0018] showin the policies refer to file attributes and predicates in the file archive system

isxxx the hints are encoded in a markup language notation).

As per claim 13, Papierniak further teaches the following:

"receiving a request for one of the files" (See Fig. 3 and col. 5, lines 57-58 papwin

sending request to server, via internet, for getting a web page file isxxx receiving a

request for one of the files);

"retrieving the requested file from the allocated storage" (See Fig. 3 and col. 5, lines 58-

62 papwin retrieving web page file from repository isxxx retrieving the requested file

from the allocated storage); and

"returning the retrieved file" (See Fig. 3, col. 5, lines 62-64 papwin sending the retrieved

web page file, via internet, to the user computer isxxx returning the retrieved file).

6. Claims 9 and 14-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Papierniak et al. (U.S. Patent 6,169,997, hereafter "Papierniak") in view of Shoup et al.

(U.S. Publication 2002/0147734, hereafter "Shoup"), as applied to Claims 1-8, 10-11, 13

and 20-21, and further in view of Candan et al. (U.S. Patent 6,549,896, hereafter "Candan").

As per claim 9, the combined Papierniak-Shoup reference teaches referring web page files by using temporal proximity as previously described for claim 3 rejection.

The combined reference does not specifically teach "the hints further specify weights which describe a degree of dependency for the relationships".

However, Candan teaches assigning a penalty value to the links between web pages files based on the distance of the links and the relevance of preference for the pages at col. 15, lines 50-57.

It would have been obvious to one having ordinary skill in the art at the time of the applicant's invention was made to combine Candan's reference with Shoup and Papierniak's by applying the preference relevance value to web page file and penalty value to link of Papierniak's system because all the three references are devoted to efficiently accessing data from a global file system. The combination of the references would have allowed the relevance of files to the hints be quantized, sorted and stored sequentially such that the performance for accessing page files would have been further improved.

As per claim 14, Papierniak teaches "using the received hints to create dependency information which is stored by a receiver of the hints in temporary or permanent

storage" at Fig. 1, element 118 and col. 6, lines 7-12 where the web page files

dependency, the page map is stored in the warehouse; and

"receiving a request for one of the files" at Fig. 3 and col. 5, lines 57-58 by sending

request to server, via internet, for getting a web page file.

Neither Papierniak nor Shoup specifically teach "determining a read request strategy

for the requested file by accessing the stored dependency information".

However, Candan further teaches retrieving web pages by discovering the underlying

relationships embedded in the links at col. 7, lines 26-37.

It would have been obvious to one having ordinary skill in the art at the time of the

applicant's invention was made to combine Candan's reference with Shoup and

Papierniak's by applying dependency on or relationships to hints for retrieving web

page files because all the three references are devoted to efficiently accessing data

from a global file system. The combination of the references would have had files better

sorted and stored such that the performance for accessing page files would have been

further improved.

As per claim 15, Candan further teaches "the read request strategy comprises

determining selected ones of the files which should be pre-fetched along with a read of

the requested file" at col. 15, lines 43-47 by using convergence vector for pre-fetching

the web content.

As per claim 16, Candan further teaches "the step of determining selected ones further comprises comparing a dependency weight of the files to a pre-fetch threshold" at col. 12, lines 29-54 where convergence vector is described, and at Fig. 9A and col. 15, lines 33-47 where the convergence vector is utilized to pre-fetch the web content.

As per claim 17, Candan further teaches "the pre-fetch threshold is used to tune the pre-fetch operation" at col. 15, line 58 – col. 16, line 5 where the end-user navigation log is maintained for determining penalty values of links of navigation which affects the values of convergence vector for pre-fetching.

As per claim 18, Papierniak teaches the following:

"retrieving the requested file from the allocated storage" and "retrieving the selected ones from the allocated storage " at Fig. 3 and col. 5, lines 58-62 by retrieving web page file from repository; and

"returning the retrieved file" at Fig. 3, col. 5, lines 62-64 by sending the retrieved web page file, via internet, to the user computer.

Candan further teaches "caching the retrieved selected ones" at col. 2, lines 5-13 where caching system directly sends web content from cache to the user.

As per claim 19, Candan further teaches "the step of caching the retrieved requested file" at col. 2, lines 5-13 where caching system directly sends web content from cache to the user.

7. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Papierniak et al. (U.S. Patent 6,169,997, hereafter "Papierniak") in view of Shoup et al. (U.S. Publication 2002/0147734, hereafter "Shoup"), as applied to Claims 1-8, 10-11, 13 and 20-21, and further in view of Kolar et al. (U.S. Publication 2004/0064500, hereafter "Kolar").

As per claim 12, the combined Papierniak-Shoup reference teaches web page file relationship, the page map is encoded in markup language as described in Item 1 fro rejecting claim 11.

The Papierniak-Shoup combined reference does not specifically teach "the markup language notation is Extensible Markup Language ("XML") notation".

However, Kolar teaches that text readable metafile XML comprises a structure corresponds to a specific media.

It would have been obvious to one having ordinary skill in the art at the time of the applicant's invention was made to combine Kolar's reference with Shoup and Papierniak's by including XML language as one encoding for the web pages file relationship, the page map. The combination of references would have been obvious to an ordinary skilled in the art because XML syntax can be utilized to bundle text, video, graphic image and hyperlink.

8. The prior art made of record

    A. U.S. Patent   6,169,997

B. U.S. Publication   2002/0147734

C. U.S. Patent   6,549,896

D. U.S. Publication   2004/0064500

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

E. U.S. Patent   5,918;229

F. U.S. Publication   2002/0174267

Response to Arguments

9. The Applicants' arguments filed on August 16, 2004 have been fully considered, for the Examiner's response, please see discussion below:

a). At Page 7, claims 1, 20 and 21, Applicant argued that the Papierniak reference does not teach "receiving hints that comprises an indication of anticipated relationships among files". In responding to the newly introduced issue "an indication of anticipated relationships", the Examiner has cited Shoup et al. (U.S. Publication 2002/0147734) reference for providing the equivalent teaching by supplying policies for storage allocation as previously described in the Office Action.

b). At Pages 8-9, claims 1, 20 and 21, the Applicant argued that the combination of Papierniak's teaching with Davis reference is improper. Based on the newly introduced issue as previously described in item a), the Examiner has cited the Shoup reference and the combined teachings of Soup and Paperniak references to rejecting the claims in this Office Action.

c). At Page 9, claim 6, the Applicant argued that the combined Papierniak-Davis

reference does not teach a temporal proximity of a reference file to a selected one of

the files. Based on the Shoup reference, the Examiner cited the file creation and

expiration dates to suggest the newly cited reference provide the teaching.

10. In light of the forgoing arguments, the 35 U.S.C 103 rejection for Claims 1, 20 and

21 is hereby sustained.   As to dependent claims 2-19, which depend on claim 1, the

Examiner applies the above stated arguments for the respective claim upon which they

depend. Further In light of the forgoing arguments, the 35 U.S.C 103 rejection for

Claims 1-21 is hereby sustained.

Conclusion

11. THIS ACTION IS MADE FINAL.

The Applicants are reminded of the extension of time policy as set forth in 37 CFR

1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

12. The prior art made of record, listed on form PTO-892, and not relied upon, if any, is considered pertinent to applicant's disclosure.

If a reference indicated as being mailed on PTO-FORM 892 has not been enclosed in this action, please contact Lisa Craney whose telephone number is 571-272-3574 for faster service.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kuen S Lu whose telephone number is 571-272-4114. The examiner can normally be reached on 8 AM to 5 PM, Monday through Friday. If at tempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene can be reached on 571-272-4107. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Kuen S. Lu

Patent Examiner

December 6, 2004

Luke Wassum

Primary Examiner

December 6, 2004